REMARKS

    Claims 1 - 72 remain active in this application. No
amendments are currently presented and no new matter has
been introduced into the application. The withdrawal of
the previous grounds of rejection is noted with
appreciation.

    Claims 1 - 72 have been rejected under 35 U.S.C.
§103 as being unpatentable over Hultgren in view of
Feinberg and Nag et al. This ground of rejection is
respectfully traversed.

    The Examiner now admits that Hultgren does not teach
or suggest a network monitoring section for monitoring a
network state or a resource allocating computing section
based on failures and received signal quality and cites
Feinberg for such a teaching. The Examiner further
admits that the combination of Hultgren and Feinberg does
not teach or suggest setting up resource allocation based
on an aggregate of calls and resource allocation
information and cites Nag et al. for such teaching. As
will be detailed below, it is respectfully submitted that
the sole ground of rejection is essentially a piecemeal,
hindsight reconstruction of the invention which still
fails to answer the recitations of the claims and,
moreover, the newly applied references to Feinberg and
Nag do not provide evidence of a level of ordinary skill
in the art which would support the conclusion of
obviousness which the Examiner asserts for the simple
reason that they do not lead to an expectation of success
in achieving the meritorious effects of the invention
which are supported by the *combination* of features
recited in the claims; which *combination* is not taught or
remotely suggested by any of the references applied and
which cannot be properly combined, as discussed below.

Specifically, the invention as claimed is directed to a system which monitors the state of a network in regard to current levels of failures and received signal quality and determines required resource allocation *on the network* which will assure a required quality of service (QoS) based on *both* network state (e.g. failures and received signal quality on which resource allocation information is ultimately based) and an aggregate of calls (e.g. the calls currently in progress and the additional calls anticipated but not yet requested) while not allocating significantly more resources than are necessary to achieve such improvements in service. In other words, the invention simultaneously manages the allocation of resources in accordance with three different criteria; functions which were not available from the prior art prior to the present invention.

It should be understood that for a given desired level of QoS, some margin or excess of resource allocation is generally required (or at least desirable) above that for the calls currently connected/being communicated (e.g. backup paths - see paragraph bridging pages 14 and 15) since network conditions may vary unpredictably. An excess of allocated resources is also generally required (or at least desirable) so that new calls may be accepted without delay for setup due to a need for processing to obtain additional allocation of resources for newly received call connection requests (see, for example) paragraph bridging pages 16 and 17). At the same time, it is desirable that the margin or excess of allocated resources be kept as small as possible while avoiding such delays and that the number of changes in resource allocation also be as few as possible and the present invention also requests or releases resources based on the number of connected calls

(see page 15, lines 19 - 26). The operations to perform
these functions are discussed from page 15, line 27, to
page 17, line 9, with reference to Figure 6.

It is clear from that discussion, particularly in
regard to thresholds for changing resource allocation and
the corresponding network resources allocated and the
dynamic modification thereof noted at page 16, lines 22 -
25, that the basic meritorious effects of the invention
in regard to changing the margin of allocated resources
above the resources currently in use, are supported by
basing the computed resource allocation information on
both the network state (e.g. failures and quality of
received signal) and an aggregate of calls as recited in
independent claims 1, 6, 37 and 42. Further, dynamically
changing the network resource allocation policy in regard
to resource allocation based on network state (e.g.
failures and received signal quality) as recited in
independent claims 4 and 40 is, itself, considered to be
novel and central to the meritorious function of the
invention in assuring sufficient but not excessive
resource allocation to provide requested QoS for all
calls while avoiding delay in setup of new calls.

As previously pointed out in the response filed June
5, 2006, which is hereby fully incorporated by reference,
Hultgren is principally directed to the marketing of
excess network capacity to deliver QoS at a level above
that originally requested in the call request and is thus
directed to a very different problem from that of the
present invention and does not include many of the
features of the invention explicitly recited in the
claims, including the deficiencies now admitted by the
Examiner. It is respectfully submitted that these
deficiencies of Hultgren are not mitigated in regard to
the claimed subject matter by Feinberg and/or Nag et al..

Feinberg appears to be directed to maintaining QoS for existing calls merely by terminating selected calls which would cause degradation of other currently connected calls (See Abstract, last four lines, Figure 3 and column 6, line 57 to column 7, line 22). Thus, while Feinberg monitors a variety of QoS events such as those listed at column 5, lines 36 - 39, Feinberg does not teach or suggest determination of resources needed to maintain QoS in the presence of new call requests or to determine a resource allocation policy for requesting or releasing resources based on those events (e.g. "resource requirements with reference to the network state information", as recited in claims 4 and 40) much less dynamically altering resource allocation based on *both* an aggregate of calls and network state. Thus, Feinberg is substantially irrelevant to the subject matter of the claimed invention other than establishing that certain enumerated QoS events can be monitored while the response thereto in Feinberg is to terminate calls rather than dynamically altering the allocation of resources; an approach to maintaining QoS diametrically opposed to that of the invention. Moreover, it is not seen that the monitoring of QoS or the termination of calls in response thereto in Hultgren which is directed to the marketing of *excess* bandwidth capacity; to which the teachings and suggestions of Feinberg are also diametrically opposed. Therefore it is respectfully submitted that Feinberg is not properly combinable with Hultgren and the Examiner's position is clearly indicative of the impermissible reliance on hindsight in attempting to reconstruct the claimed subject matter.

Nag et al. appears to be somewhat more relevant to the invention than Feinberg but still fails to answer the claimed subject matter, even in combination with Hultgren
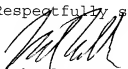
and Feinberg. Nag et al. considers an aggregate of calls
which includes estimated call connection requests (based
on historical data). Further, Nag et al. mentions that
the pre-allocated reservation protocol "may be
dynamically adjusted to account for actual usage"
(paragraph [0030]. However, Nag et al. is principally
directed to providing scalability of resource allocation
processing as the number of calls becomes large by
providing for messages to and from terminals to be
multiplexed over a link between aggregation managers such
that the aggregation managers "themselves appear as the
actual application flow originators/recipients"
(paragraph [0076]). However, the only alternative
disclosed to simply terminating calls when the allocated
resources become insufficient that appears to be
disclosed in Nag et al. is that the "aggregation manager
may continue the application session establishment
process and provide a *best effort* service for the request
(*without the use of pre-allocated resources*" (paragraph
[0068], emphasis added). No teaching of any particular
technique for dynamic *adjustment of pre-allocated
resources* (as distinct from dynamic *allocation* of those
resources - see paragraph [0048]) is seen to be taught or
suggested in Nag et al. much less determining a resource
allocation policy based on network state or allocation of
resources based on both network state and an aggregation
of calls. In any event, there is no teaching in Nag et
al. of any processing in regard to resource allocation in
response to the QoS events of Feinberg (admitted to be
absent from Hultgren) and, as with Feinberg, Nag et al.
would have no function in the apparatus of Hultgren since
the response to exceeding the allocated resources is
either to terminate calls or use other resource for "best
effort" service where requested QoS is not guaranteed.

Thus, in summary, it is respectfully submitted that the Examiner has not shown how the teachings, suggestions or evidence of the level of ordinary skill in the art discernable from the references applied answers the recitations of any claim in the application but, rather, has admitted that neither network state monitoring nor determination of an aggregate of calls is used as a basis for resource allocation in Hultgren (which, it is respectfully submitted, also does not provide allocation of resources but merely seeks to market available resources) then cites Feinberg for monitoring QoS events but only terminating calls when resources are exceeded. and further, after admitting theat the combination of Hultgren and Feinberg do not teach allocation of resources based on an aggregate of calls, cites Nag et al.; thus glossing over the recitation of basing resource allocation *policy* on network state, recitations of derivation and processing of information ultimately based on the network state, and/or recitations of allocation of resources based on a *combination of conditions*. Thus the Examiner has not made and cannot make a *prima facie* demonstration of obviousness of any claim and the sole ground of rejection is clearly in error and, upon reconsideration, should be withdrawn.

Since all rejections, objections and requirements contained in the outstanding official action have been fully answered and shown to be in error and/or inapplicable to the present claims, it is respectfully submitted that reconsideration is now in order under the provisions of 37 C.F.R. §1.111(b) and such reconsideration is respectfully requested. Upon reconsideration, it is also respectfully submitted that this application is in condition for allowance and such action is therefore respectfully requested.

     If an extension of time is required for this
response to be considered as being timely filed, a
conditional petition is hereby made for such extension of
time. Please charge any deficiencies in fees and credit
any overpayment of fees to Attorney's Deposit Account No.
50-2041.

                         Respectfully submitted,

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